

THE WATER CHERENKOV ORGANIZATION

Jim Stewart
LBNE Collaboration Meeting
July 2009

Update on LBNE Plans

- ▣ Developed a plan for CD-0 to CD-1 time frame.
 - Plan assumes that the water Cherenkov detector S4 is approved.
 - Documents submitted to DOE clearly state that the S4 is funded.

Plan for DOE project funds for WC detector

- ▣ Set up a project management office at BNL.
 - ▣ Must fulfill DOE project management requirements.
- ▣ Hire engineering and design support at BNL.
 - ▣ Liner/Vessel
 - ▣ PMTs
 - ▣ Integration/installation
- ▣ Support the engineering efforts at UW-PSL for design of the water Cherenkov detector.
- ▣ Fund several consulting contracts.
- ▣ Support Livermore water system effort.

Boundary Conditions from DOE

- ▣ Scientific personnel should not be funded from the project.
 - Scientists can only be considered if they are working as technicians or engineers.

BNL Project Management Group

- ▣ Myself
- ▣ Sr. Controls Specialist (.2 FTE)
- ▣ Controls Specialist (New Hire)
- ▣ Safety Officer (0.2 FTE)

Next year add

- ▣ Designer

BNL Engineering

- ▣ New Hires
 - 1/2 PMTs
 - 1/2 Integration
 - 1/2 Water Containment
 - 1/2 Installation
- ▣ Existing
 - .3 Senior Engineer

Additional engineer and designer in FY10

Contracts

- ▣ PSL for water containment and PMT support.
- ▣ Vessel Construction engineering
- ▣ PMT stress analysis

My Immediate Plans

- ▣ Put in place MOUs
 - Will use style from BNL Atlas
 - These are my first MOUs
 - Also need “pass-through” agreement inside BNL
- ▣ Prepare Contracts
- ▣ Missing working group leaders
- ▣ Determine plans of LBNE groups

List of Working Groups

- ▣ Water Containment
 - Farshid Feyzi
 - Robert Paulos
- ▣ PMTs
- ▣ Electronics/Readout
 - Ed Kearns
 - Rick Van Berg
- ▣ Calibration
 - Bob Svoboda
- ▣ Water System
 - Richard Bionta
 - Hank Sobel
- ▣ Civil Interface
 - Not sure where to put in WBS
- ▣ Software/Simulations
 - Chris Walter (Simulations)
- ▣ Integration/Installation

Bob has done most the work till now.

What the working groups need to deliver in ~1yr

- ▣ A CDR (Version CD1)
- ▣ An alternates analysis
- ▣ A preliminary resource loaded schedule
 - This means you need a really good plan!
 - A cost range
 - Baseline for PED money. Need the exact cost for the design.
- ▣ Plus other documents which I need to look into.

Organization Considerations Options ...

1. The scope of the project is fixed at CD-2
 - Alternate technologies are possible at CD-1
 - Alternatives must be explained in the CRD and a concrete plan for how the final selection including cost impact must be estimated in detail.

However:

2. The total cost must be understood to the extent a solid cost range can be given.
 - The more alternates the more work getting a cost estimate.

We must be 100% certain we can build the detector within the cost range we quote!